Application No.: 10/532,830

**AMENDMENTS TO THE CLAIMS** 

This listing of claims will replace all prior versions and listings of claims in the

application:

**LISTING OF CLAIMS:** 

1. - 22. (cancelled).

23. (currently amended): A method for managing a denitration catalyst, the method for

managing a plurality of one or more denitration catalysts in an exhaust-gas denitration system,

the method comprising:

measuring a performance of the denitration catalysts separately for each of the denitration

catalysts in consideration of a ratio of inlet NH<sub>3</sub> to inlet NO<sub>x</sub>; and

determining which process is to be performed, regeneration of the denitration catalysts or

replacement of the denitration catalysts, or neither of the regeneration nor the replacement is

performed, for each of the denitration catalysts based on the performance measured.

24. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, wherein

the regeneration process includes a plurality of types of regeneration processes, and

when it is determined to perform the regeneration, the determining includes selecting an

optimum type from among the types of the regeneration processes.

25. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, further comprising replacing, when it is determined to perform the

replacement, one of the denitration catalysts with a denitration catalyst that has been used in

another exhaust-gas denitration system and that that has undergone regeneration.

26. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, further comprising determining a charge amount to be collected, when it

is determined to perform the regeneration, by acquiring an amount of money at a predetermined

ratio to an amount of a difference between a cost required for the replacement and a cost required

Application No.: 10/532,830

for the regeneration.

27. (currently amended): The method for managing a <u>one or more</u> denitration catalysts

according to claim 23, further comprising determining a charge amount to be collected from a

user of the exhaust-gas denitration system based on a cost required for installation and

management of the denitration catalysts.

28. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, wherein

the performance is measured by checking an exhaust gas at an inlet and an outlet of each

of the denitration catalysts in a daily management for the denitration catalysts.

29. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, wherein

the measuring includes, in a periodic maintenance for the denitration catalysts,

extracting a sample of each of the denitration catalysts, and

measuring performance of the sample.

30. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, further comprising altering, when it is determined to perform the

replacement, a shape of a denitration catalyst to be replacement.

31. (currently amended): The method for managing a one or more denitration catalysts

according to claim 23, further comprising altering, when it is determined to perform the

regeneration, a shape of a denitration catalyst to be regenerated.

32. (currently amended): The method for managing a <u>one or more</u> denitration catalysts

according to claim 23, wherein

the determining includes determining whether at least one of the regeneration, the

replacement, and an addition of a new denitration catalyst is performed or none of the

AMENDMENT UNDER 37 C.F.R. § 1.116

Application No.: 10/532,830

regeneration, the replacement, and the addition is performed, for each of the denitration catalysts

based on the performance.

33. (currently amended): The method for managing a one or more denitration catalysts

Attorney Docket No.: Q87428

according to claim 32, further comprising adding, when it is determined to perform the addition,

a denitration catalyst that has been used in another exhaust-gas denitration system, and that has

undergone regeneration.

34. (currently amended): The method for managing a one or more denitration catalysts

according to claim 32, further comprising altering, when it is determined to perform the addition,

a shape of a denitration catalyst to be added.

35. (currently amended): A method for managing a denitration catalyst, the method for

managing a plurality of one or more denitration catalysts in an exhaust-gas denitration system,

the method comprising:

measuring performance of the denitration catalysts separately for each of the denitration

catalysts in consideration of a ratio of inlet NH<sub>3</sub> to inlet NO<sub>x</sub>; and

determining execution timing for regeneration of the denitration catalysts and for

replacement of the denitration catalysts, for each of the denitration catalysts based on the

performance.

36. (currently amended): The method for managing a one or more denitration catalysts

according to claim 35, wherein

the determining includes determining execution timing for addition of a new denitration

catalyst for each of the denitration catalysts in addition to the execution timing for the

regeneration and for the replacement.

37. (currently amended): The method for managing a one or more denitration catalysts

according to claim 35, wherein

the performance is measured by checking an exhaust gas at an inlet and an outlet of each

of the denitration catalysts in a daily management for the denitration catalysts.

Application No.: 10/532,830

38. (currently amended): The method for managing a <u>one or more</u> denitration catalysts

according to claim 35, wherein

the measuring includes, in a periodic maintenance for the denitration catalysts,

extracting a sample of each of the denitration catalysts, and

measuring performance of the sample.

39. (currently amended): A method for managing-a denitration catalyst, the method for

managing a plurality of one or more denitration catalysts in an exhaust-gas denitration system,

the method comprising:

predicting performance of each of the denitration catalysts based on information on a

scale and a total time of operation of the exhaust-gas denitration system; and

determining execution timing for regeneration of the denitration catalysts, for

replacement of the denitration catalysts, and for addition of a new denitration catalyst, besides

already provided denitration catalysts, based on the performance.

40. (currently amended): An apparatus for managing a denitration catalyst that manages

a plurality of one or more denitration catalysts in an exhaust-gas denitration system that includes

a measuring device, the apparatus comprising:

a receiving unit that receives information on performance of each of the denitration

catalysts that is measured by the measuring device, through a network;

a storage unit that stores the information; and

a determining unit that determines in consideration of a ratio of inlet NH<sub>3</sub> to inlet NO<sub>x</sub>

which process is to be performed, regeneration of the denitration catalysts or replacement of the

denitration catalysts, or neither of the regeneration nor the replacement is performed, for each of

the denitration catalysts based on the information in the storage unit.

41. (currently amended): The apparatus for managing a <u>one or more</u> denitration catalysts

according to claim 40, wherein

the determining unit determines whether at least one of the regeneration, the replacement,

and an addition of a new denitration catalyst is performed, or none of the regeneration, the

Application No.: 10/532,830

replacement, and the addition is performed, for each of the denitration catalysts based on the

information in the storage unit.

42. (currently amended): An apparatus for managing a denitration catalyst that manages

a plurality of one or more denitration catalysts in an exhaust-gas denitration system that includes

a measuring device, the apparatus comprising:

a receiving unit that receives information on performance of each of the denitration

catalysts that is measured by the measuring device, through a network;

a storage unit that stores the information; and

a determining unit that determines in consideration of a ratio of inlet NH<sub>3</sub> to inlet NO<sub>x</sub>

execution timing for regeneration of the denitration catalysts and for replacement of the

denitration catalysts for each of the denitration catalysts based on the information in the storage

unit.

43. (currently amended): The apparatus for managing a <u>plurality of denitration catalysts</u>

according to claim 42, wherein

the determining unit determines execution timing for an addition of a new denitration

catalyst for each of the denitration catalysts based on the information in the storage unit in

addition to the execution timing for the regeneration and for the replacement.

44. (currently amended): An apparatus for managing a denitration catalyst that manages

a plurality of one or more denitration catalysts in a first exhaust-gas denitration system, the

apparatus comprising:

a storage unit that stores information on performance of a plurality of denitration

catalysts in a second exhaust-gas denitration system and information on execution timing for

regeneration of the denitration catalysts, for replacement of the denitration catalysts, and for

addition of a new denitration catalyst that are determined based on the information on the

performance of the denitration catalysts in the second exhaust-gas denitration system;

a receiving unit that receives information on a scale and a total time of operation of the

first exhaust-gas denitration system;

Application No.: 10/532,830

a predicting unit that predicts performance of each of the denitration catalysts in the first exhaust-gas denitration system based on the information received and the information in the storage unit; and

a determining unit that determines execution timing for the regeneration, for the replacement, and for the addition for each of the denitration catalysts, besides already provided denitration catalysts, based on the performance predicted.